

A NEW MIOCENE ULMERIELLA

(FOSSIL ISOPTERA, HODOTERMITIDAE)

BY THOMAS E. SNYDER, *Bureau of Entomology and Plant Quarantine,
United States Department of Agriculture*

Through the kindness of Dr. Roland W. Brown, of the U. S. Geological Survey, I have examined the fossil wing of a primitive termite from the Latah formation (Miocene) of the State of Washington. It was collected late in 1937 with three other wing fragments by Kenneth Buxton of Spokane, Washington, at Cut No. 1 on the Spokane, Portland and Seattle Railroad.

This appears to be the hind wing (Fig. 1) of an *Ulmeriella*, a termite in the family Hodotermitidae, subfamily Hodotermitinae. The living genera in this subfamily are *Hodotermes*, *Microhodotermes* and *Anacanthotermes*. Species included are the unusual day harvesting or wander termites which occur in the Palaearctic, Ethiopian and Indo-Malayan zoogeographical regions. In 1920, Meunier established the genus *Ulmeriella* for what he supposed to be a fossil wing of a caddis fly. Cockerell and Snyder in 1925 decided that this was a fossil termite wing. This is the only fossil genus in the subfamily Hodotermitinae. Species of *Ulmeriella* have been found in the Oligocene and Miocene formations of Germany and South Siberia.

The occurrence of a fossil wing of *Ulmeriella* in the Miocene of Washington is the first record of any species in the subfamily Hodotermitinae in the New World.

***Ulmeriella latahensis*, new species**

Hind wing 16 mm. in length, 5 mm. in width at widest portion. Wing membrane dark brown and reticulate. The subcostal vein is unbranched and extends $1/5$ of the length of the wing before joining the costal vein. R_1 vein is absent. R_{2+3} of the radius sector is unbranched and joins the costa at about $2/5$ of the length of the wing. R_{4+5} has several inferior branches and extends to the tip of the wing. These inferior branches are typical of the subfamily Hodotermitinae. Cross veins present. Median vein divides at approximately half the length of the wing, and with this single parallel branch extends nearly to the tip of the wing. Cubitus does not extend to tip of wing but reaches lower margin of wing near the tip; at the middle of the wing it occupies an area slightly more than half the width of the wing; there are at least 12 branches to the margin. Anal vein distinct. The wing scale or stub is not present.

The only other known fossil termite from the Latah formation is *Parastylotermes washingtonensis* (Snyder), which is

in the subfamily Stylotermitinae, family Rhinotermitidae, and is a much less primitive termite. Another species of *Parastylotermes* has been found in Baltic amber from East Prussia, which is considered to be in the Eocene formation. The only other genus in the subfamily Stylotermitinae is the living *Stylotermes* which contains only one species occurring in India.

Type locality: Cut No. 1, Spokane, Portland and Seattle Railroad, Spokane, Washington.

Holotype: Hind wing, Cat. No. 59181, U. S. National Museum.



Text Figure 1.—Hind wing of the fossil termite, *Ulmeriella latahensis*, enlarged 6.5 times.

THE EFFECTIVENESS OF DDT AGAINST DERMESTIDS IN INSECT BOXES

By HENRY TOWNES, *Bureau of Entomology and Plant Quarantine, United States Department of Agriculture*

To test the effectiveness of DDT against dermestids attacking insect collections, each of ten Schmitt boxes was supplied with identical sets of insect specimens and eight of them were sprayed with various dosages of DDT dissolved in xylene. The two unsprayed boxes served as controls. About two and a third years after treatment dermestid larvae were placed in each box to find how well the specimens were protected by the various dosages. The results indicate that DDT had some value against dermestids in insect collections, but is no sure preventive, except perhaps in heavy dosages.

The Schmitt boxes used were of the smaller type, with inside dimensions of $6\frac{3}{4}$ by $11\frac{1}{2}$ by $1\frac{3}{4}$ inches (17.1 by 29.3 by 4.4 cm.). Twenty-three pinned insect specimens were placed